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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,914	03/16/2005	Rainer Heller	2002P11020WOUS	9070
7590 Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830				
EXAMINER WU, JUNCHUN				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/527,914

Applicant(s)

HELLER ET AL.

Examiner

JUNCHUN WU

Art Unit

2191

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21, 24-29, 31-36 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21, 24-29, 31-36, and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to the amendment filed on Mar. 14, 2008.
2. Claims 21, 24-29, 31-36, and 38 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21, 24-29, and 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong-Insley (US Patent No.6, 131,166), in view of Gloudeman et al. (U.S. Patent No. 6,028,998 hereinafter "Gloudeman") and further view of Anderson et al. (U.S. Patent No. 7,293,261 B1 hereinafter "Anderson").
5. Per claim 21

Wong-Insley discloses

A storage medium which stores a software system for providing a programming environment to create device-independent functionality among automation devices in an automation system of the type including a plurality of automation devices (col.3 lines 1-4 "*The invention provides a framework for the development of Java applications (including applets) to manage the power resources and power states of power-manageable computer systems and attached devices.*" & col.3 lines 35-39 "*The power management framework defines a plurality of standardized,*

system-independent system power states which may represent the current power status of an entire computer system: full power, power management active, sleep, suspend, and off.”), the system comprising:

- an automation device-specific adapter for each of the automation devices, each adapter providing a translation of a solution into instructions which can be interpreted by an automation device the software system (col.9 lines 9-16 “*The Java Virtual Machine 222, the porting interface 220, the adapters 216a, 216b, and 216c, the JavaOS 218, and other similar pieces of software on top of the operating systems 212a, 212b, and 212c may, individually or in combination, act as means for translating the machine language of Java applications 232, APIs 226 and 230, and Classes 224 and 228 into a different machine language which is directly executable on the underlying hardware.*”).
- providing encapsulation of specific functions of at least one of the automation devices and providing a base functionality of the one automation device, the editors and compiler (col.9 lines 44-51 “*In a preferred embodiment, the Java™ application-level power management framework comprises a set of standardized, system-independent system power states, a set of standardized device power states which is inherited from an industry standard, a set of well defined power state transitions, and a set of programming interfaces (i.e., APIS) for power management which provide a channel for applications to participate in power management.*” ; In the object-oriented programming like the Java™, all the variables and methods within an object is referred to as encapsulation.).

But Wong-Insley does not disclose

- one or more automation engineering editors for generating solutions for one or more of the automation devices and providing an automation functionality, in a standard framework for application among automation devices having different command sets for being programmed.

However, Gloudeman discloses

- one or more automation engineering editors for generating solutions for one or more of the automation devices (col.11 lines 26-28 “*Typically an application is developed using the application framework to generate the application whereupon it is downloaded to the system to implement a solution.*”).
- providing an automation functionality, in a standard framework for application among automation devices having different command sets for being programmed (col.4 lines 22-38 “*The command component provides a somewhat related function with respect to certain methods of the standard object that are available for execution through the user interface....*”).
- Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify teaching of Wong-Insley with the teachings of Gloudeman to include one or more automation engineering editors for generating solutions for one or more of the automation devices and providing an automation functionality, in a standard framework for application among automation devices having different command sets for being programmed in order to provide an application framework to construct complex and sophisticated building automation systems for distributing across multiple nodes on a network.

Both Wong-Insley and Gloudeman do not disclose

- a compiler for translating the solutions into an intermediate language in a runtime framework.

But Anderson discloses

- a compiler for translating the solutions into an intermediate language in a runtime framework (col.4 lines 52-56 “*The converter 18, for example, employs a compiler interface that enables translation from the language neutral representation 12 to the executable representation, such as assembly (or object code), byte code, or a desired intermediate language.*”).
- Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine teachings of Wong-Insley and Gloudeman and further include a compiler for translating the solutions into an intermediate language in a runtime framework by the teachings of Anderson in order to provide a method for a compiler interface that be implemented by a compiler to translate language-neutral representation into executable object code. Such interfaces expose methods or functions that facilitate the translation from the language-neutral representation into a desired form.

6. Per claims 24 and 32

the rejection of claim 21 is incorporated and Wong-Insley discloses

- the software system is provided for developing control software in the automation system (col.4 lines 63-66 “*As used herein, a programming interface is an application*

programmer interface or API: a set of routines, protocols, methods, variables, tools, and/or other resources for building software applications.”).

7. Per claims 25 and 33

the rejection of claim 21 is incorporated and Wong-Insley discloses

- the software system provides technological objects for automation devices (col.18 lines 14-17 “*There should only be one SystemPowerMonitor object in a system. The constructor of SystemPowerMonitor, which creates the instance of the sole SystemPowerMonitor object and prevents the instantiation of another instance*”).

8. Per claims 26 and 34

the rejection of claim 21 is incorporated

But Wong-Insley does not disclose

- a memory for storing automation solutions for recurring tasks.

However, Gloudeman discloses

- a memory for storing automation solutions for recurring tasks (col.2 lines 48-53 “*the standard components of the preferred embodiment are illustrated to show how they are related through nesting. In FIG. 1 the shorthand notation 1-n means that the object can have one to many instances, depending on a particular building automation problem being solved.*”).

9. Per claims 27 and 35

the rejection of claim 26 is incorporated and Wong-Insley discloses

- adapted for using the Internet and/or an intranet for transmitting data (col.8 lines 6-8
“Typically, applets are embedded in a Web page, downloaded over the Internet from the server, and run on a client machine.”).

10. Per claims 28 and 36

the rejection of claim 21 is incorporated and Wong-Insley discloses

- an automation- specifically designed programming language is used for developing control software for the automation system (col.3 lines 14-16 *“In one embodiment, the invention comprises one or more Java™ programming interfaces or APIs which permit Java™ applications to participate in power management.”*).

11. Per claim 29

A method for providing device-independent functionality for automation devices, the method comprising:

Wong-Insley discloses

- providing an automation device-specific adapter for each of the automation devices, each adapter providing a translation of a solution from the intermediate language into instructions which can be interpreted by an automation device (col.9 lines 9-16 *“The Java Virtual Machine 222, the porting interface 220, the adapters 216a, 216b, and 216c, the JavaOS 218, and other similar pieces of software on top of the operating systems 212a, 212b, and 212c may, individually or in combination, act as means for translating the*

machine language of Java applications 232, APIs 226 and 230, and Classes 224 and 228 into a different machine language which is directly executable on the underlying hardware.”).

- the software system providing encapsulation of specific functions of at least one of the automation devices, the editors and compiler (col.9 lines 44-51 *“In a preferred embodiment, the Java™ application-level power management framework comprises a set of standardized, system-independent system power states, a set of standardized device power states which is inherited from an industry standard, a set of well defined power state transitions, and a set of programming interfaces (i.e., APIs) for power management which provide a channel for applications to participate in power management.”*; In the object-oriented programming like the Java™, all the variables and methods within an object is referred to as encapsulation.).

But Wong-Insley does not disclose

- providing an automation functionality in a standard framework for application among automation devices having different command sets for being programmed.

However, Gloudeman discloses

- providing an automation functionality in a standard framework for application among automation devices having different command sets for being programmed (col.4 lines 22-38 *“The command component provides a somewhat related function with respect to certain methods of the standard object that are available for execution through the user interface....”*).

- Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify teaching of Wong-Insley with the teachings of Gloudeman to include one or more automation engineering editors for generating solutions for one or more of the automation devices and providing an automation functionality, in a standard framework for application among automation devices having different command sets for being programmed in order to provide an application framework to construct complex and sophisticated building automation systems for distributing across multiple nodes on a network.

Both Wong-Insley and Gloudeman do not disclose

- providing a compiler for receiving solutions from one or more automation engineering editors and translating the solutions into an intermediate language in a runtime framework.

But Anderson discloses

- providing a compiler for receiving solutions from one or more automation engineering editors and translating the solutions into an intermediate language in a runtime framework (col.4 lines 52-56 “*The converter 18, for example, employs a compiler interface that enables translation from the language neutral representation 12 to the executable representation, such as assembly (or object code), byte code, or a desired intermediate language.*”).
- Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine teachings of Wong-Insley and Gloudeman and further include a compiler for translating the solutions into an intermediate language in a

runtime framework by the teachings of Anderson in order to provide a method for a compiler interface that be implemented by a compiler to translate language-neutral representation into executable object code. Such interfaces expose methods or functions that facilitate the translation from the language-neutral representation into a desired form.

12. Per claim 31

the rejection of claim 29 is incorporated and Wong-Insley discloses

- automation functionality is provided independent of the automation device (col.17 lines 18-22 “*Thus, the interfaces provide means for programmers to develop individual, independent components of an application which allows applications to participate in power management, yet still ensure compatibility between the components.*”).

13. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong-Insley, in view of Gloudeman and further view of Hammond (U.S. Patent No.6, 336,118 B1).

14. Per claim 38

the rejection of claim 36 is incorporated

But both Wong-Insley and Gloudeman do not disclose

- compilers are provided for mapping the intermediate language onto a target platform.

However, Hammond discloses

- compilers are provided for mapping the programming language onto the target platform (col.3 lines 33-36 “*The client utilizes the data type defined in IDL through a language*

mapping. This mapping defines the programming language constructs (data types, classes, etc.) that will be generated by the IDL compiler supplied by an ORB vendor.”).

- Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine teachings of Wong-Insley and Gloudeman and further include compilers are provided for mapping the programming language onto the target platform by the teachings of Hammond in order to utilize at run time with the assurance that there will be no interaction mismatches (col.3 lines 50-56).

Response to Arguments

Applicant's arguments filed on Mar. 14, 2008 have been fully considered but they are not persuasive.

- In the remarks, Applicant argues that:
 - (a) In regard to independent claims 21 and 29 applicant respectfully submits currently claims that cited prior art does not disclose or suggest.

Examiner's response:

Examiner disagrees.

- (a) Applicant's arguments with respect to claims 21 and 29 have been considered but are moot in view of the new ground(s) of rejection— see Gloudeman and Anderson.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUNCHUN WU whose telephone number is (571)270-1250. The examiner can normally be reached on 8:00-17:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JW

/Wei Zhen/

Supervisory Patent Examiner, Art Unit 2191